CLAIMS

What is claimed is:

1. A crusher comprising:

a framed housing;

a pair of rolling drums for rotation about parallel axes and at a predetermined spacing from each other to define between them a throat, said throat having a width and a length;

each said rolling drum carrying a plurality of radially projecting longitudinally extending teeth, said teeth projecting radially to at least a part of the of the width of said throat;

motor means connected to rotate said rolling drums in timed synchronous fashion but in opposite directions, the teeth of the opposed rolling drums being in register so as to pass through said throat; and

a directing means for directing rock into said throat to be fractured by said rotating teeth into fragments of a size sufficiently small to pass between said rolling drums.

2. A crusher as claimed in claim 1 wherein each of said teeth include at least one compact insert of hard wear resistant composition.

3. A crusher as claimed in claim 1 wherein each of said teeth has a top surface and leading working surface.

4. A crusher as claimed in claim 3 wherein both said top surface and said leading working surface have at least one compact insert of hard wear resistant composition.

5. A crusher as claimed in claim 4 wherein said teeth are formed by casting, said casting includes first placing said compact inserts in a mold and then pouring a molten metal into the mold.

6. A crusher as claimed in claim 1 wherein said teeth have at least one exposed surface and each of said teeth include at least one compact insert having a hard wear resistant composition.

7. A crusher as claimed in claim 6 wherein the compact insert extends to a height greater than 3 mm beyond the exposed surfaces of the tooth.

8. A crusher as claimed in claim 6 wherein the compact insert extends to a height beyond the exposed surfaces of the tooth within the range of 3-8 mm.

9. A crusher as claimed in claim 6 wherein the compact insert extends to a height less than 9 mm beyond the exposed surfaces of the tooth.

10. A crusher tooth comprising:

a tooth body,

wherein said tooth body includes at least one compact insert of hard wear resistant composition.

11. A crusher as claimed in claim 10 wherein said tooth body has a top surface and leading working surface.

12. A crusher as claimed in claim 11 wherein both said top surface and said leading working surface have at least one compact insert of hard wear resistant composition.

13. A crusher as claimed in claim 10 wherein said tooth is formed by casting, said casting includes first placing said compact inserts in a mold and then pouring a molten metal into the mold.

14. A crusher as claimed in claim 10 wherein said tooth has at least one exposed surface and said tooth includes at least one compact insert having a hard wear resistant composition.

15. A crusher as claimed in claim 14 wherein the compact insert extends to a height greater than 3 mm beyond the exposed surfaces of the tooth.

16. A crusher as claimed in claim 14 wherein the compact insert extends to a height beyond the exposed surfaces of the tooth within the range of 3-8 mm.

17. A crusher as claimed in claim 14 wherein the compact insert extends to a height less than 9 mm beyond the exposed surfaces of the tooth.